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Baker et al.

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(54) **METHOD OF FORMING AN ELECTRONIC PRESSURE SENSITIVE TRANSDUCER ON A PRINTED CIRCUIT BOARD**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 22 days.

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(58) **Field of Classification Search** 29/592.1, 29/595, 831, 832, 841; 338/5, 47, 99, 114, 338/128; 438/48; 439/79

See application file for complete search history.

(57) **ABSTRACT**

The cost and complexity of an electronic pressure sensitive transducer are decreased by constructing such a transducer directly on a printed circuit board containing support electronics. Conductive traces are formed on the printed circuit board to define a contact area. A flexible substrate having an inner surface is positioned over the contact area. An adhesive spacer, substantially surrounding the contact area, attaches the flexible substrate to the printed circuit board. At least one resistive layer is deposited on the flexible substrate inner surface. In use, the resistive layer contacts at least two conductive traces in response to pressure applied to the flexible substrate to produce an electrical signal indicative of applied pressure.

7 Claims, 5 Drawing Sheets

